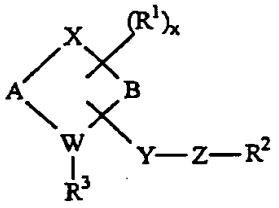
CLAIMS

1. A compound of the formula



wherein

A is $(CH_2)_m$, m being from 1 to 3;

B is $(CH_2)_n$, n being from 1 to 3;

x is from 0 to 2;

R^1 is C_1 to C_{10} hydrocarbyl, in which up to 2 carbon atoms may be replaced by O, S or N, and up to 2 hydrogen atoms may be replaced by halogen;

R^2 is H or C_1 to C_{15} hydrocarbyl, in which up to 3 carbon atoms may be replaced by O, S or N, and up to 3 hydrogen atoms may be replaced by halogen;

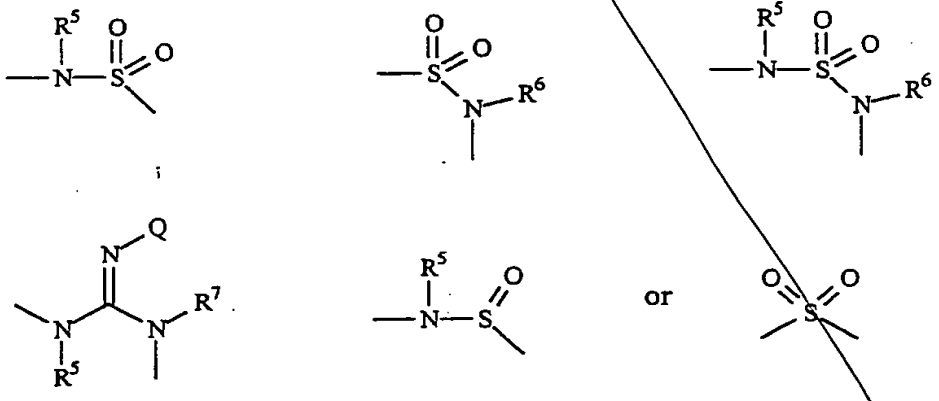
R^3 is absent when -Y-Z-R^2 is attached to W, or is H or C_1 to C_7 hydrocarbyl when -Y-Z-R^2 is not attached to W;

W is nitrogen;

X is $-CH_2-$, -O- or $-NR^4-$, R^4 being H or C_1 to C_3 alkyl;

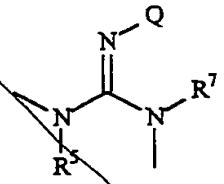
Y replaces a hydrogen atom on any of A, B, W and X, and is C_2 to C_{10} alkylene, in which one non-terminal carbon atom may be replaced by O; and

Z is



wherein R^5, R^6 and R^7 are independently H or C_1 to C_{15} hydrocarbyl, in which up to 3 carbon atoms may be replaced by O or N, and up to 3 hydrogen

atoms may be replaced by halogen, and Q is H or methyl, or Q is linked to R^5 or R^7 to form a five-membered ring or Q is linked to R^2 to form a six-membered ring, provided that when Z is



at least one of R^5 and R^7 is aryl(C_1 to C_3)alkyl or cycloalkyl(C_1 to C_3)alkyl, optionally substituted by halo;

or a pharmaceutically acceptable salt thereof.

2. A compound according to claim 1 wherein R^2 is selected from alkyl, aryl, arylalkyl, cycloalkyl and cycloalkylalkyl, wherein alkyl moieties are optionally substituted by halo, and aryl groups are optionally substituted by C_1 to C_4 alkyl, C_1 to C_4 alkoxy or halo.

3. A compound according to claim 1 wherein R^2 is selected from phenyl, halophenyl, benzyl, halobenzyl, phenylethyl, halophenylethyl, phenylpropyl, halophenylpropyl, phenylbutyl, halophenylbutyl, tolyl, methoxybenzyl, trifluoromethylbenzyl, halo-methoxybenzyl, phenylbenzyl, adamantanemethyl, adamantaneethyl, adamantanepropyl, cyclohexanemethyl, cyclohexaneethyl, and naphthyl.

4. A compound according to any of claims 1 to 3 wherein x is 0.

5. A compound according to any of claims 1 to 3 wherein x is 1 or 2, and R^1 is selected from hydroxy, C_1 to C_9 alkoxy (optionally substituted by halo), C_1 to C_9 cycloalkylalkoxy (wherein the cycloalkyl group is optionally substituted by C_1 to C_4 alkyl or halo, and the alkoxy group is optionally substituted by halo), arylalkoxy (wherein the aryl group is optionally substituted by C_1 to C_4 alkyl, C_1 to C_3 alkoxy or halo, and the alkoxy group is optionally substituted by halo) and C_1 to C_9 alkylamino wherein the alkyl group is optionally substituted by halo.

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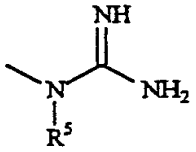
6. A compound according to any preceding claim wherein R^3 is H, C_1 to C_7 alkyl or benzyl

7. A compound according to any preceding claim wherein R^5, R^6 and R^7 are independently selected from H, aryl(C_1 to C_3)alkyl and cycloalkyl(C_1 to C_3)alkyl, and are optionally substituted by halo.

8. A compound according to any preceding claim wherein Y is propylene, butylene, pentylene, hexylene, heptylene, octylene or nonylene.

9. A compound according to any preceding claim wherein $m+n \geq 3$.

10. A compound according to claim 8, wherein $m+n \geq 3$, $Z\text{-}R^2$ is



and R^5 is benzyl or halobenzyl.

~~11. A compound according to any preceding claim, for use in therapy.~~

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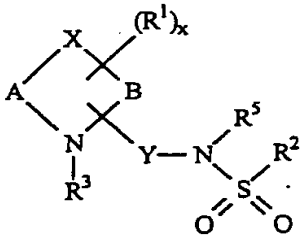
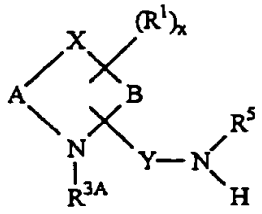
12. A compound which is degraded *in vivo* to yield a compound according to any of claims 1 to 10.

13. A pharmaceutical composition comprising a therapeutically effective amount of a compound according to any of claims 1 to 10, and a physiologically acceptable diluent or carrier.

14. A method of making a compound of the formula

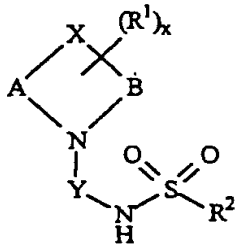


wherein A, B, x, R^1, R^2, R^3, R^5, X and Y are as recited in claim 1, said method comprising the step of reacting a compound of the formula R^2SO_2Cl with a compound of the formula

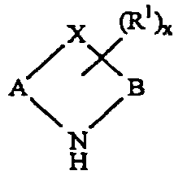


wherein R^{3A} is C_1 to C_7 hydrocarbyl or a protecting group.

15. A method of making a compound of the formula

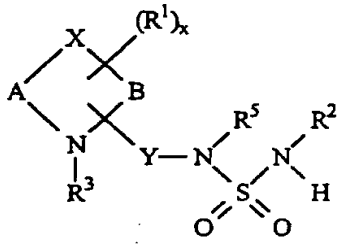


wherein A, B, x, R^1, R^2, X and Y are as recited in claim 1, said method comprising the step of reacting a compound of the formula

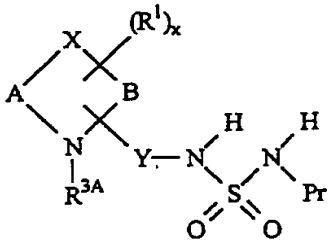


with a compound of the formula Cl-Y-NH-SO_2-R^2.

16. A method of making a compound of the formula

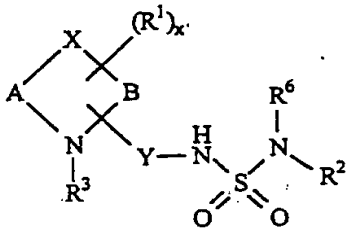


wherein A, B, x, R^1, R^2, R^3, R^5, X and Y are as recited in claim 1, said method comprising the step of reacting a compound of the formula

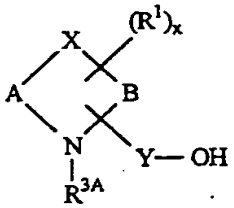


(wherein R^{3A} is C_1 to C_7 hydrocarbyl or a protecting group and Pr is a protecting group) with a compound of the formula R^2Br, and reacting the product with R^5Br when R^5 is not hydrogen.

17. A method of making a compound of the formula

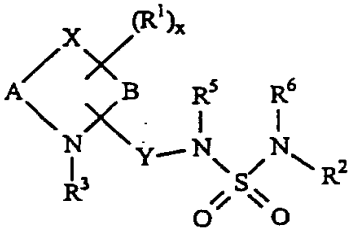


wherein A, B, x, R^1, R^2, R^3, X and Y are as recited in claim 1, said method comprising the step of reacting a compound of the formula

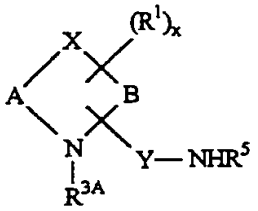


(wherein R^{3A} is C_1 to C_7 hydrocarbyl or a protecting group) with a compound of the formula R^2-NH-SO_2-NH-Pr, wherein Pr is a protecting group, and reacting the product with R^6Br when R^6 is not hydrogen.

18. A method of making a compound of the formula

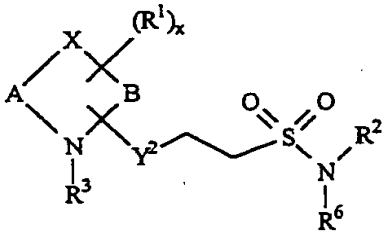


wherein A, B, x, R^1, R^2, R^3, R^5, R^6, X and Y are as recited in claim 1, said method comprising the step of reacting a compound of the formula

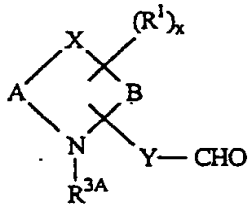


(wherein R^{3A} is C_1 to C_7 hydrocarbyl or a protecting group) with a compound of the formula R^2R^6NH and sulfamide.

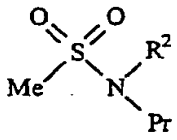
19. A method of making a compound of the formula



wherein A, B, x, R^1, R^2, R^3, R^6 and X are as recited in claim 1 and Y^2 is a bond or C_1 to C_8 alkylene, said method comprising the step of reacting a compound of the formula

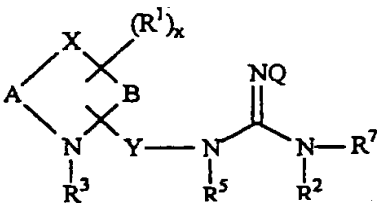


(wherein R^{3A} is C_1 to C_7 hydrocarbyl or a protecting group) with a compound of the formula



wherein Pr is a protecting group, reducing the reaction product, and (when R^6 is not hydrogen) reacting the reduced product with R^6Br.

20. A method of making a compound of the formula



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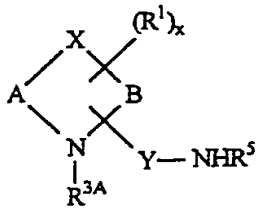
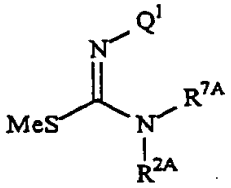
wherein A, B, x, R^1, R^2, R^3, R^5, R^7, Q, X and Y are as recited in claim 1, said method comprising the step of reacting a compound of the formula

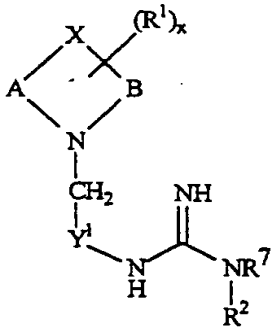


with a compound of the formula

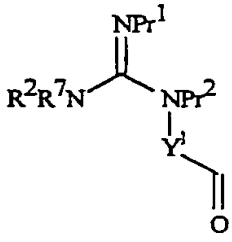


wherein Q^1, R^{2A}, R^{3A}, and R^{7A} are any of the groups defined for Q, R^2, R^3, and R^7, respectively, or protecting groups.

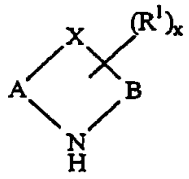
21. A method of making a compound of the formula



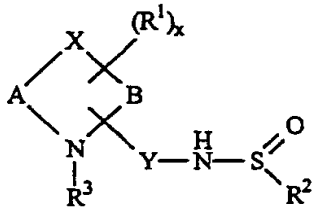
wherein A, B, x, R^1, R^2, and X are as recited in claim 1 and Y^1 is a C_1 to C_9 alkylene group, said method comprising the step of reacting a compound of the formula



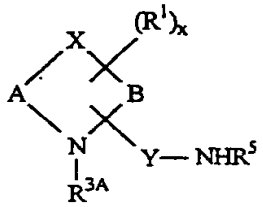
(wherein Pr^1 and Pr^2 are protecting groups) with a compound of the formula



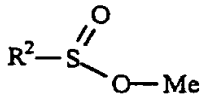
22. A method of making a compound of the formula



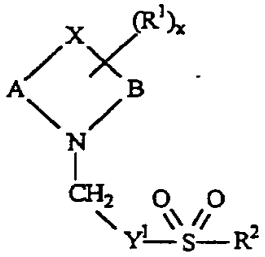
wherein A, B, x, R^1, R^2, R^3, R^5, X and Y are as recited in claim 1, said method comprising the step of reacting a compound of the formula



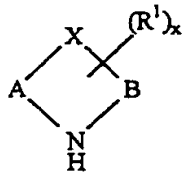
(wherein R^{3A} is C_1 to C_7 hydrocarbyl or a protecting group) with a compound of the formula



23. A method of making a compound of the formula

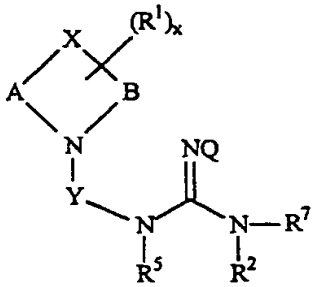


wherein A, B, x, R^1, R^2, and X are as recited in claim 1 and Y^1 is a C_1 to C_9 alkylene group, said method comprising the step of reacting a compound of the formula

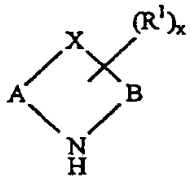


with a compound of the formula R^2-SO_2-Y^1-CHO.

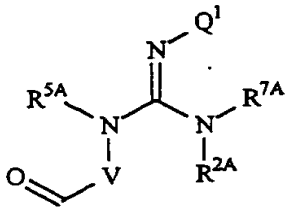
24. A method of making a compound of the formula



wherein A, B, x, R^1, R^2, R^5, R^7, Q, X and Y are as recited in claim 1, said method comprising the step of reacting a compound of the formula

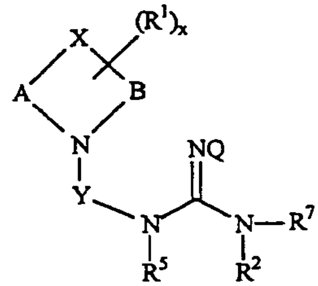


with a compound of the formula

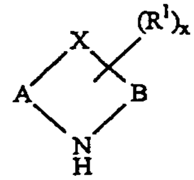


wherein V is C_1 to C_9 alkylene, and Q^1, R^{2A}, R^{5A} and R^{7A} are any of the groups defined for Q, R^2, R^5 and R^7, respectively, or a protecting group.

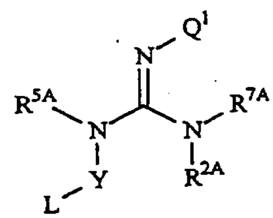
25. A method of making a compound of the formula



wherein A, B, x, R^1, R^2, R^5, R^7, Q, X and Y are as recited in claim 1, said method comprising the step of reacting a compound of the formula

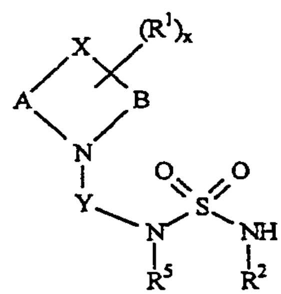


with a compound of the formula

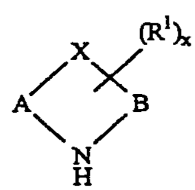


wherein L is a leaving group, and Q^1, R^{2A}, R^{5A} and R^{7A} are any of the groups defined for Q, R^2, R^5 and R^7, respectively, or a protecting group.

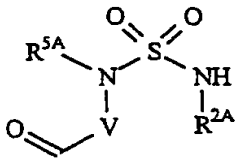
26. A method of making a compound of the formula



wherein A, B, x, R^1, R^2, R^5, X and Y are as recited in claim 1, said method comprising the step of reacting a compound of the formula

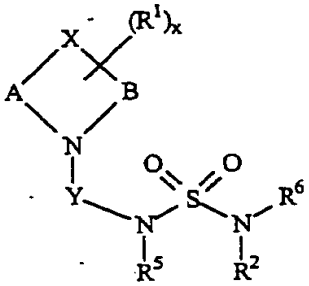


with a compound of the formula

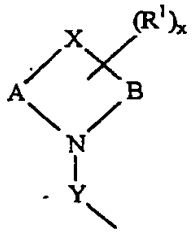


wherein V is C_1 to C_9 alkylene, and R^{2A} and R^{5A} are any of the groups recited for R^2 and R^5, respectively, or a protecting group.

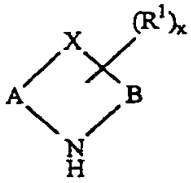
27. A method of making a compound of the formula



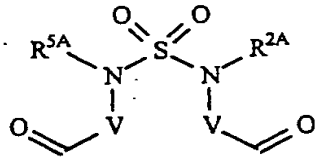
wherein A, B, x, R^1, R^2, R^5, X and Y are as recited in claim 1 (provided that the moiety



constitutes a group falling within the definition of R^6), said method comprising the step of reacting a compound of the formula



with a compound of the formula



wherein V is C_1 to C_9 alkylene, and R^{2A} and R^{5A} are any of the groups recited for R^2 and R^5, respectively, or a protecting group.

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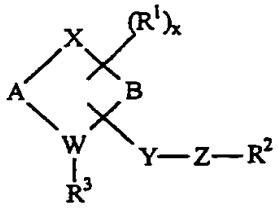
28. The use of an H_3 receptor ligand in the manufacture of a medicament for modifying H_3 receptor activity in a patient, said H_3 receptor ligand being a compound of the formula



wherein

A is $(CH_2)_m$, m being from 1 to 3;

B is $(CH_2)_n$, n being from 1 to 3;

x is from 0 to 2;

R^1 is C_1 to C_{10} hydrocarbyl, in which up to 2 carbon atoms may be replaced by O, S or N, and up to 2 hydrogen atoms may be replaced by halogen;

R^2 is H or C_1 to C_{15} hydrocarbyl, in which up to 3 carbon atoms may be replaced by O, S or N, and up to 3 hydrogen atoms may be replaced by halogen;

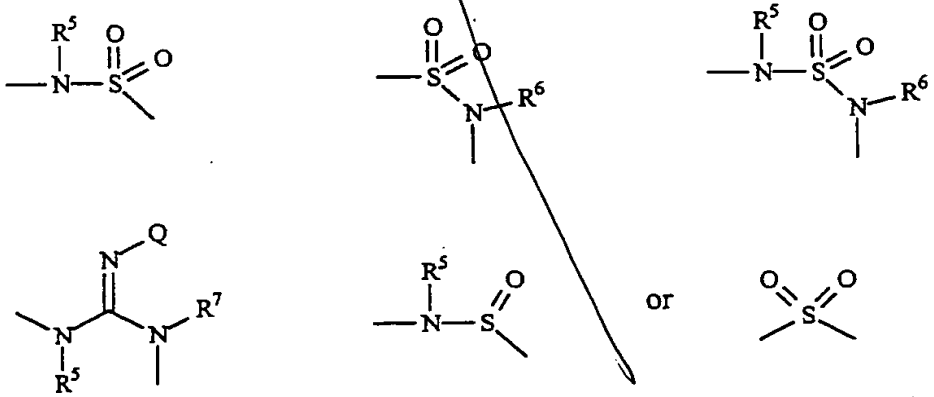
R^3 is absent when -Y-Z-R^2 is attached to W, or is H or C_1 to C_7 hydrocarbyl when -Y-Z-R^2 is not attached to W;

W is nitrogen;

X is $-CH_2-$, -O- or $-NR^4-$, R^4 being H or C_1 to C_3 alkyl;

Y replaces a hydrogen atom on any of A, B, W and X, and is C_2 to C_{10} alkylene, in which one non-terminal carbon atom may be replaced by O; and

Z is



sub A3>

wherein R^5, R^6 and R^7 are independently H or C_1 to C_{15} hydrocarbyl, in which up to 3 carbon atoms may be replaced by O or N, and up to 3 hydrogen atoms may be replaced by halogen, and Q is H or methyl, or Q is linked to R^5 or R^7 to form a five-membered ring or Q is linked to R^2 to form a six-membered ring,

or a pharmaceutically acceptable salt thereof.

add B2

add C4>